

Chapter 6

Social Aspects of Learning

Before pursuing the important notion of structure in more detail, a serious limitation—involving many of the theories that have been discussed up to this point—requires further comment. In varying degrees, the work of Plato, Locke, the behaviorists, the Gestalt theorists, Piaget, and von Glaserfeld all harbor this defect: *The learner is depicted as a lone investigator*. Certainly the learner may be actively interacting with the environment (in the depictions of Piaget, Köhler, and the behaviorists), or may be a passive recipient of stimulation or experience (according to Locke and Plato)—but what is missing from these accounts is detailed exploration of the fact that learners by necessity belong to social groups. Learners have parents, siblings, teachers, peers, and fellow learners, with whom they communicate and interact, and from whom they receive guidance and stimulation. Learners interact with adults who are generally more proficient than they are, they discuss their puzzlements and engage in activities with their friends (using the social medium of language), and they read books and magazines and watch television (the various forms of media are, after all, devices for communication produced within society). Any account of learning that gives short shrift to these diverse social factors to some degree must be deficient. (At this point the comparison with computers and hand-held calculators that has served us well—and to which we shall return in following chapters—reaches its breaking point. The analogy might be saved if we consider the role of the computer programmer, who in a sense acts in a manner similar to a teacher or a parent. But even so, we are only referring to a single person effecting learning, and our point here is that all of society and its media are teachers.)

The points made above barely scratch the surface of the topic of indebtedness of growing individuals to their social-cultural environment. Most forms of learning (certainly the sorts that are of professional relevance to us as educators), and most human communication, would not be possible without language; and language is a social medium (the philosopher Wittgenstein even has an argument to show that an absolutely private

language is impossible—even a “secret code” is merely a translation of a natural language). This is not to deny that animals (which cannot speak), and very young children at their pre-linguistic stages of development, are still able to learn by imitation or by behaviorist-style “shaping” of certain of their spontaneous behaviors; but the learning of history, literature, mathematics, science, aesthetics, and such things as the principles of morality are all enterprises in which language plays a crucial role and thus, at base, are social enterprises.

Furthermore, the bodies of knowledge that have been built up in history or science, or the literary canon, and so forth, are all social products in the sense that researchers, writers, and philosophers have contributed to the construction of these bodies of knowledge over long periods of time, using such social processes as discussion, argument or debate, criticism, publication or public demonstration and dissemination, collaboration or teamwork, and adjudication or refereeing of disputes. It is worth reflecting on the fact that different societies existing in the present day, and societies in different historical periods of their development, each have or had particular bodies of knowledge—and also intellectual tools and techniques—that are or were regarded as important for learners in those societies to master. In other words, what educators attempt to pass on to learners in every society is socially determined! No wonder, then, that the social construction of knowledge—“social constructivism”—is currently a topic of great interest to philosophers, sociologists, and others.

In present-day advanced societies there is a tendency for us to overlook the obvious facts mentioned above, because of the long-standing Western individualistic/liberal tradition that has been passed on to us as part of our own social heritage. We tend to think that in some historical or logical sense individuals came first, and then at some crucial stage in human history they decided to band together to form societies in order to gain mutual benefit. In other words, individuals *decided* to form societies—it was a rational choice. (Rousseau even wrote a book on “the social contract” that, he pretended, these rational ancestors of ours entered into when they formed early societies!) These days scholars regard all this as a fanciful myth; there *never* was a time when humans did not live in groups—we *are* social animals, who actually evolved within groups, and in all probability we developed from pre-human ancestors who also lived in groups. Thus living together, communicating and interacting, working cooperatively on tasks with other members of our social group, and so forth, are the historical *norm* for humans, not a late “add-on.” Our ancestors became rational *within* groups—it was not the case that they became rational and *then* formed groups. The ethnographer Clifford Geertz has made the interesting (and at first sight quite paradoxical) point that it is even within a social or cultural group that we become individuals; he wrote:

Becoming human is becoming individual, and we become individual under the guidance of cultural patterns, historically created systems of meaning in terms of which we give form, order, point, and direction to our lives. As culture shaped us as a single species—and is no doubt still shaping us—so too it shapes us as separate individuals.¹

As we shall see in the following discussion, the philosopher and educationist John Dewey was well aware of the social nature of learning; he even advocated adopting a social perspective on the whole educational enterprise:

Education, in its broadest sense, is the means of this social continuity of life. Every one of the constituent elements of a social group, in a modern city as in a savage tribe, is born immature, helpless, without language, beliefs, ideas, or social standards. Each individual, each unit who is the carrier of the life-experience of his group, in time passes away. Yet the life of the group goes on. The primary ineluctable facts of the birth and death of each one of the constituent members in a social group determine the necessity of education.²

However, expressions such as “social perspective on learning,” “social aspects of learning,” the “social nature of learning,” and the like are somewhat vague; we note that even our own discussion in the previous few pages has referred to different things in the course of using such language. An essay that brings some philosophical clarity (even though it was written by two psychologists!) appeared in 1998; Salomon and Perkins distinguished six different things that could be meant when learning’s “social aspects” are referred to; they argued that four of these are particularly important to distinguish from one another. They continued:

We began by asking whether social learning is a meaningful concept, sufficiently distinct from individual learning to warrant attention. Our answer is an emphatic yes. As elaborated earlier, there is ample evidence to show that individuals’ learning is facilitated by others, that meaning is often socially constructed, that [socially derived] tools serve as mediators, and that social systems as organic entities can engage in learning much as individuals do [a sporting team can learn new strategies, for example].³

Social Influences on the “Piagetian Child”

We must now return to the issue of how learning occurs in a social context. A good place to start is to return to the work of Piaget, who tended to give an individualistic rather than a social account: the Piagetian child is, in essence, a young researcher, busily exploring the environment and con-

structing schemata in solitary play. When the child faces a problem, he or she makes some accommodatory change to restore cognitive equilibrium. In much of his writing Piaget gives the impression that this is a solitary endeavor—the child seems to make such changes without help from anyone. Even when an adult is playing with an infant (as when the parent is hiding the baby’s rattle under the blankets in the crib, or is rolling a ball of clay into a sausage shape), the *child* is the one who eventually discovers (or, perhaps more accurately, invents) an accommodatory change that will enable sense to be made of what is happening and that will restore equilibrium.

But is this what really happens in most cases? Don’t most adults who interact with a child give it clues about what is happening when there is a puzzle? “Does this sausage of clay *really* have more in it than the clay ball? How can that be? I haven’t put more clay in, have I?” This kind of remark is a direct hint to the child about what sort of accommodatory change is likely to pay off—it is a hint about the principle of conservation of matter. Granted, young children *do* spend much time in solitary play, but there is still a great deal of nurturing interaction with other human beings that Piaget seems to downplay. This deficiency is even more pronounced when we consider how people learn something on the order of Einstein’s special theory of relativity. Most of us (with the obvious exception of Einstein himself) learned this theory from a textbook, with a teacher or classmates peering over our shoulder or working with us, ready to offer advice and further explanation as we struggled with the difficult material. We did not learn about the theory by reinventing it for ourselves, or by accommodating entirely by ourselves when we were out of equilibrium. We were given, or sought out, social resources for learning it.

John Dewey

John Dewey, whom we met in a different context in an earlier chapter, was extremely sensitive to the social nature of learning. In a passage that Piaget would have done well to ponder, Dewey wrote—similarly to Geertz—that:

As matter of fact every individual has grown up, and always must grow up, in a social medium. His responses grow intelligent, or gain meaning, simply because he lives and acts in a medium of accepted meanings and values. Through social intercourse, through sharing in the activities embodying beliefs, he gradually acquires a mind of his own. The conception of mind as a purely isolated possession of the self is at the very antipodes of the truth.... the self is not a separate mind building up knowledge anew on its own account.⁴

Dewey stressed that the school was a *community*, but too often educators overlooked this by keeping students isolated at individual desks. This stifled both pupil activity and communication. In contrast, Dewey wanted schools to engage students in meaningful activities where they had to work with others on problems. Purposeful activity in social settings was the key to genuine learning in Dewey's view. (It is commonplace, even today, for students to be punished or chastised by teachers for talking with each other, even though in most situations in the adult world people learn by communicating with their fellow workers!)

The teacher's task in all this was to "provide the conditions that stimulate thinking" and to take a sympathetic attitude; the teacher had to participate in "a common or conjoint experience" with the learner. Under no circumstances was just *telling* the student about a new idea very effective—the student would come to learn this new thing by rote, but would be unlikely to understand it or see its relevance and connection to other ideas. The best way to learn a new idea, according to Dewey, was by means of "normal communication with others"—the process of communication in which the learner was interacting with others in purposeful activities or investigations of common interest.⁵ Modern researchers, such as education sociologist Elizabeth Cohen,⁶ have paid a great deal of attention to the organization and management of productive groupwork in schools.

Case One

In his famous novel *Oliver Twist*, Charles Dickens described what happens when young Oliver, lost and destitute, is given refuge by the master pickpocket and thief, Fagin, and his band of young criminals including "the artful Dodger" and Charlie Bates. Before the gang is sent out for each day's "work," Fagin "warms them up" with the following game, which also serves to train new members like Oliver:

When the breakfast was cleared away, the merry old gentleman and the two boys played a very curious and uncommon game, which was performed in this way. The merry old gentleman, placing a snuff-box in one pocket of his trousers, a note-case in the other, and a watch in his waistcoat pocket, with a guard chain around his neck, and sticking a mock diamond pin in his shirt: buttoned his coat tight around him, and putting his spectacle-case and handkerchief in his pockets, trotted up and down the room with a stick, in imitation of the manner in which old gentlemen walk about the streets any hour in the day. Sometimes he stopped.... At such time he would look constantly around him, for fear of thieves, and would keep shaking all his pockets in turn, to see that he hadn't lost anything, in such a very funny and natural manner, that Oliver laughed till the tears ran down his face. All this time, the two boys followed

him closely about, getting out of his sight, so nimbly, every time he turned round, that it was impossible to follow their motions. At last, the Dodger trod upon his toes, or ran upon his boot accidentally, while Charlie Bates stumbled up against him behind; and in that one moment they took from him, with the most extraordinary rapidity, snuff-box, note-case, watch-guard, chain, shirt-pin, pocket-handkerchief,—even the spectacle-case. If the old gentleman felt a hand in any one of his pockets, he cried out where it was; and then the game began all over again.⁷

What theories of learning are helpful in explaining the various things that are learned here? Why did the participants (including the onlookers) find this game so engaging? What is your opinion of Fagin as a teacher? Before continuing with the next section, you might consider the case "Individualized Learning" in Chapter 10.

Vygotsky and Others

Another writer who was well aware of the social nature of learning was the Soviet psychologist Lev Vygotsky (1896–1934). An essay published posthumously in 1935 contained the following recognition of the flaw in the Piagetian approach:

In experimental investigations of the development of thinking in school children, it has been assumed that processes such as deduction and understanding, evolution of notions about the world, interpretation of physical causality, and mastery of logical forms of thought and abstract logic all occur by themselves, without any influence from school learning. An example of such a theory [can be seen in] Piaget's extremely complex and interesting theoretical principles.⁸

In contrast to Piaget, Vygotsky did not assign much importance to the "stage" of development at which a child might be, for Piagetian stages (and IQ, for that matter) were only a rather "static" indicator of what intellectual tasks a child could accomplish *on his or her own*. Vygotsky, aware that learning takes place in social settings, was more interested in the learning *potential* that a child might have—what the child might accomplish with the guidance of adults or older peers. He recognized that two children might be at the same Piagetian stage or have the same IQ, but that the potentials for further development of each, when properly challenged or stimulated, might be markedly different. He invented the notion of the "zone of proximal [or potential] development" (now often referred to as the "ZPD") to deal with such cases.

Vygotsky's ideas have been quite influential in his homeland, but only relatively recently have become more widely known in the Western world.

The following is a brief account of how Russian psychologists of a few years ago determined a student's zone of potential development:

A typical testing session consists of the initial presentation of a test item exactly as it would occur in an American IQ test with the child being asked to solve the problem independently. If the child fails to reach the correct solution, the adult progressively adds clues for solution and assesses how much additional information the child needs in order to solve the problem. The child's initial performance, when asked to solve the test item independently, provides information comparable to that gained with standardized American IQ testing procedures. The degree of aid needed before a child reaches solution is taken as an indication of the width of his potential zone... the level of competence he can reach with aid. In addition we gain information of the child's ability to profit from adult assistance, his speed of learning.⁹

This aspect of Vygotsky's work seems to be helpful to teachers, who as a matter of educational strategy probably should not treat their students as if they are frozen at some definite intellectual state, and thus as if they are incapable of further growth or development. (To do this is to set up a "self-fulfilling" situation, akin to the no-win situation we discussed in Chapter 4; if students are treated as if they were "frozen" at some stage, there may be little they can do to convince the teacher that they are not, for the range of responses or behaviors available to them may only be those that seem to benefit individuals at this stage!) On the contrary, schooling is based on the assumption that students will learn when placed in groups or other educational settings devised by expert teachers.

In further contrast to Piaget's self-constructed schemas, Vygotsky stressed that much of what we learn we learn from others. Moreover, what is most important to learn from others are those "psychological tools" that human societies have invented to allow individuals to deal effectively with each other and the world.¹⁰ Logics, symbolic transformation, concepts, forms of notation, signs, numbers—like the hammers and saws of carpenters—are the "tools" humans use to build a view of a world they inhabit together. When a learner acquires a new "psychological tool," new possibilities are opened up. Here are two examples: first, a young child's capacity to remember is greatly expanded when she learns to speak, and has acquired a vocabulary in which to formulate things to commit to memory. Second, it is impressive how many new types of problems, and how many situations, can be dealt with once a school-aged child has acquired some mastery of decimal notation (many problems that are almost impossible to solve using fractions become "child's play" when formulated this new way—even the relatively simple "fourteen and three-quarters multiplied by ten" becomes a pushover when written in the form " 14.75×10 ").

Language is the supreme human "psychological tool," making higher forms of learning, problem-solving, and acquisition of many skills possible. And both Vygotsky and Dewey recognized that language is, primarily, a means of communication. The concepts and relationships captured in language are transmitted and acquired in a social medium.

In the child's early developmental experience, then, concepts (of "woman" or "man," for instance) come first, then the socially appropriate name or label for the concept is learned, with the help of more mature language users. In school, however, Vygotsky realized that children are taught some of the psychological tools of a society by being told their "names" (e.g., "exports," "energy," "social class," "capitalism," "Marxism") without the experience of the concepts. Unlike familiar and readily experienced objects (e.g., women and men), these concepts (e.g., exports or capitalism) are artifacts of a particular form of social life; they are not easy to learn about in direct ways. Nevertheless, it is these abstract and socially important psychological tools that we often try to teach in schools.

Vygotsky also recognized that a key factor in social learning was the young person's ability to learn by imitation. Interacting with adults and peers in cooperative social settings gave the young learner ample opportunity to observe, imitate, and subsequently develop higher mental functions.¹¹ This notion of imitation has been central in the work of later researchers. In particular, Stanford psychologist Albert Bandura placed imitation at the center of his "social learning theory"—however, he gave it the somewhat more impressive label of "modeling":

Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them of what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action. Because people can learn from example what to do, at least in approximate form, before performing any behavior, they are spared needless errors.¹²

According to Bandura, much learning of this type occurs when the child is engaged in everyday situations involving other people. Even when viewing TV and films, the young learner acquires much from the vicarious experience gained, and of course parents play a vital role as models in major areas such as language-learning.

Case Two

Consider this interaction between John and his father in the light of the points made by Dewey, Vygotsky, and Bandura about the social context

of learning. What lessons are imparted during the social interaction? Evidently, John's father is modeling certain ways of "teaching" as a parent by giving John guidance about how he might make sense of an aspect of "government"—that abstract name we give to the set of political arrangements we live under as defined in our Constitution. What is John learning and how is he learning it? Could this kind of learning happen in a classroom?

- F: What are you watching on TV, John?
- J: I was looking for basketball, Dad, but I got onto C-SPAN where they were broadcasting a debate from the Senate in Washington and I started watching it.
- F: That's good. I hope this means you're going to become a lawyer and a politician instead of a basketball player.
- J: Fat chance!—Well, maybe I'd settle for President! The debate has been interesting, though. Come watch it with me. I've been puzzled by something.
- F: What's that? The quality of our representation in Washington?
- J: Stop kidding. I'm puzzled because it looks like the Vice President is there for the debate.
- F: And?
- J: Well, I thought the Vice President and the President only went to the Senate on very special occasions—like the, um, State of the Union Address, I think it's called.
- F: You're right about the President, but not about the VP. Each have different constitutional duties, and one of the VP's duties is to preside over Senate debates.
- J: Oh, that explains it then! I guess I was confused about what the Vice President is supposed to do. But, wait a minute, wasn't the VP away overseas last week? I remember seeing him on the news, visiting Australia.
- F: Yes, that's right. What's the problem with that?
- J: Well, how can he preside over the Senate if he is away a lot of the time?
- F: The next in the line of authority takes over. I'm ashamed to say I'm not exactly sure who that is—I don't remember my civics lessons too well. Maybe it's the Senate Majority Leader. We should look it up somewhere.
- J: Yeah, I think I brought home my American government textbook from school; I'll run up to my room and get it—it should tell us who's next in line.
- F: OK, but hurry back. This debate looks interesting. It's about censorship and freedom of speech. Do you ever talk about those ideas in school?

Case Three

Strictly speaking, this is a case of discovery or inquiry rather than a case of learning, although of course the individuals involved ended up learning a great deal. Discuss the role played here by intellectual and even physical tools—would the investigators have learned what they did without these, or were these things ancillary to their problem-solving? What other resources available in our society or culture did these men draw upon? Would a lone individual have been able to make this breakthrough? Finally, does science education in our schools ever approximate what happened here?

The case involves two young scientists at the beginning of their careers, Francis Crick and James Watson, who shared an office in the Cavendish Laboratory at Cambridge University in the early 1950s. They got caught up in the worldwide "race" to decipher the structure of the molecule that is fundamental to life: DNA. This is an extract from the book by Watson describing the final stages in the breakthrough that won them the Nobel Prize. The two young men had been waiting for metal models of chemical compounds they believed to be ingredients of DNA to be prepared in the lab's workshop; but in the meantime they had been using rough cardboard cutouts to test their ideas about how to account for various kinds of data they had either collected or had been given, and the diverse calculations that they had made:

Only a little encouragement [of the technicians in the workshop] was needed to get the final soldering accomplished in the next couple of hours. The brightly shining metal plates were then immediately used to make a model in which for the first time all the DNA components were present. In about an hour I had arranged the atoms in positions which satisfied both the x-ray data and the laws of stereochemistry. The resulting helix was right-handed with the two chains running in opposite directions. Only one person can easily play with a model, and so Francis did not try to check my work until I backed away and said that I thought everything fitted.... Another fifteen minutes of fiddling by Francis failed to find anything wrong, though for brief intervals my stomach felt uneasy when I saw him frowning. In each case he became satisfied and moved on to verify that another interatomic contact was reasonable.... The next several days were to be spent using a plumb line and a measuring stick to obtain all the relative positions of all atoms in a single nucleotide.¹³

Before discussing this case, you might want to reflect on the case "Learning to Balance Chemical Equations" in Chapter 10. Both depend on social interactions for learning to take place.

Situated Cognition and Legitimate Peripheral Participation in Communities of Practice

The work of Vygotsky in the early decades of the twentieth century, and of Dewey and his friend George Herbert Mead, has inspired a number of contemporary scholars to develop further the idea that human thinking, learning, and problem-solving cannot usefully be regarded as processes that only involve the inside of the human cranium! We saw in Case Three above that the actual thinking processes of Crick and Watson involved the metal model of the large and complex DNA molecule—they were not only thinking *about* their model (and what it represented), but they were thinking *with* their model. Their thinking also involved talking (to each other, and to expert colleagues), moving about, manipulating rulers, frowning and muttering, looking up some laws of chemistry in advanced reference books, and so forth. Dewey captured this idea in a wonderful passage written in 1916, a passage that should be compulsory for teachers to know by heart:

Upon this view, thinking, or knowledge-getting, is far from being the armchair thing it is often supposed to be. The reason it is not an armchair thing is that it is not an event going on exclusively within the cortex or vocal organs. . . . Hands and feet, apparatus and appliances of all kinds are as much a part of it as changes within the brain.¹⁴

Over the past several decades, Michael Cole and his colleagues have carried out many studies of the ways in which young learners, in both school and other settings, actively draw upon the resources of their environments (including the expertise of their peers) when successfully solving meaningful problems or carrying out assignments. This work has led to the development of the notion of *situated cognition* or *situated learning*. What such students come to learn, and how they learn it, cannot be understood solely in terms of what cognitive processes are occurring inside their individual heads—learning occurs effectively, and naturally, in “situations” (a Deweyan notion) in which the student is located and actively engaged.

Jean Lave and Etienne Wenger have developed this notion even further. They studied examples—drawn from around the world, and involving different walks of life—where unskilled or unknowledgeable people learn quite complex bodies of knowledge and skills through their involvement in apprenticeships. Each of these apprentices learned by gradually becoming more and more steeped in a community of practice (becoming a tailor in Africa, becoming a quartermaster in the U.S. Navy, becoming a midwife in the Yucatan, among other examples). Starting as legitimate but

peripheral members of a community of practice (the community of quartermasters on board a warship who do the navigating, for example), the apprentices—as they become more proficient—became full participants in the specialized life of their chosen field. Lave and Wenger strongly criticized the view that depicts learning as “internalization,” as primarily a “cerebral process,” and they stated:

In contrast with learning as internalization, learning as increasing participation in communities of practice concerns the whole person acting in the world. Conceiving of learning in terms of participation focuses attention on ways in which it is an evolving, continuously renewed set of relations.¹⁵

We met some examples of this earlier: Young Oliver Twist was a peripheral participant in the community of practice constituted by Fagin and his band of pickpockets. Fortunately for Oliver, he was caught by the law before he became proficient and thus a full member of this community! Or, to move to a more uplifting example, Watson’s book not only tells the story of the discovery of DNA, but also paints us a fascinating picture of how he moved from being a comparatively ignorant and awkward (and not to mention brash) legitimate but peripheral member of the community of scientists, to a fully participating and stellar member of this international community of practice. The example of Oliver Twist also illustrates another recent development in the idea of a community of learners. Fagin, the Dodger and others, and Oliver formed a community engaged in learning things of importance to them. Brown and Campione¹⁶ have developed this notion in the context of the schoolroom.

Culture and Learning

Thus far we have made frequent use of the terms “social” and “community,” but we have avoided the related (but conceptually murky) notion of “culture.” The noted anthropologist Clifford Geertz has suggested that there is no such thing as a common human nature shared by all individuals; humans are almost infinitely variable by nature, capable of developing in many different ways, and each of us is made what we are (our beliefs, our values, our tastes, our practices, our intellectual predispositions, and so forth) to a large degree by the culture into which we are born.¹⁷ Clearly something as important as this must have major educational ramifications.

These days most teachers are forced to adjust to cultural differences in their classrooms; for one thing, students who have migrated as refugees across international borders often are culturally different. (Although one needs to be careful, for having been born and raised in a foreign

country does not always indicate the presence of cultural differences—a student who has moved to the USA from Australia might be more at home in the culture of a middle-class predominately white school than a student who has moved to the same school from a Spanish-speaking area of Los Angeles, although many of the inhabitants of this latter region might be second or even third-generation Americans.) This example also illustrates the fact that there are major cultural differences within a large country like the USA; a typical urban school district might contain Samoan-Americans, Black and Hispanic Americans, Native Americans, Russian-Jewish Americans, third- or fourth-generation students of Anglo-American descent, and many others. And not all members of any one of these groups will necessarily share the same culture!

The important point for our purposes is that culture interacts in very complex ways with learning and the processes of schooling more generally. Understanding something about the culturally shaped assumptions, practices, and values of students will enable a teacher to be more effective in promoting learning, but will also make the teacher more sensitive to his or her *own* deep-seated cultural assumptions and how these might be shaping the attitude that is being adopted towards students who seem to be “different.”

There was a time (thankfully past?) when the poor performance on some school learning tasks by some culturally different students was explained in terms of a so-called “deficit” model. The cultures these students brought to school with them were thought of as being in some sense “lower” on an evolutionary scale, as not containing resources that allowed these students to work effectively on learning tasks important for achieving success in the modern world. More recent research has revealed the complex truth—culturally different students (while of course having individual differences, as is the case with respect to the members of any group) *do* have adequate resources and intellectual capacities, but this fact has been “masked” for many educators who are working from within a different cultural framework. Two examples might make this abstract point more concrete.

Shirley Brice Heath became interested in why minority children in a poor rural school district seemed unwilling—or maybe unable—to answer the routine kinds of questions asked by their teachers during typical school lessons.¹⁸ She conducted interviews and observations, but also visited the teachers at home to document the kinds of questions that they asked their own children, and she compared these to the types of questions met with by the students in their homes. She discovered that teachers typically asked questions (both at school and in their own homes) *for which they knew the answers* (like “what is seven take away three?”), whereas this type of questioning was quite foreign to the students, who—

in their own culture—were asked about matters that the adult concerned did not usually know the answer to (like “Why was Billy acting strange today?”). These students did not see the point of teacher-type questions, and had little practice at dealing with them, whereas the teachers’ own children were well socialized into this type of activity. There was no difference in intelligence here, no inability to answer questions, but rather there was a difference in cultural norms about the *point* of question-asking and question-answering behavior.

The second example is not unrelated; it is drawn from a rapidly expanding body of research by anthropologists, psychologists, and educators that focuses upon the fact that schooling embodies many practices and activities that reflect social or cultural values and proclivities and background knowledge that might not be shared by all students. Thus, some students might perform very well at tasks outside school, in culturally familiar settings, while they fail miserably at school-based tasks that require (what appear to the teacher to be) the very same intellectual skills. In one study it was found that a student who was skilled at keeping scores for six players at once in ten-pin bowling matches (a complex activity that involves tracking “strikes” where the score on the next two bowls is added to the ten earned for the strike, and “spares” where the score on the next bowl is added to the ten for the spare) was quite unable to solve bowling score problems presented in the school setting.¹⁹ (This phenomenon arises not only when there are cultural differences; it also can arise when adults who are competent problem-solvers in work settings are given similar problems to solve in school settings!)

This discussion has obviously only scratched the surface of an important and complex topic. With respect to our major concern in the present book, however, Barbara Rogoff has summarized matters well:

The structure of problems that humans attempt to solve, the knowledge base that provides resources, and the strategies for solution that are considered more or less effective or sophisticated are situated in a social matrix of purposes and values. The problems that are posed, the tools that are available to solve them, and the tactics that are favored build on the sociocultural definitions and technologies with which an individual functions.²⁰

Before going on, you may find the case “Learning to Read” in Chapter 10 interesting not only in the context of social learning but also as a way to think about many of the other theories already presented. The dialogue “Culture and Learning” in Chapter 10 also raises issues worth thinking about.